Multiple Intelligence Applications in the Early Childhood Classroom

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Doodle-li-do

Please sing to me that sweet melody called the
Doodle-li-do, Doodle-li-do
I like the rest but the part I like best goes
Doodle-li-do, Doodle-li-do
Its the simplest thing, there isn't much to it
All you gotta do is Doodle-li-do it,
I like it so, whenever I go – its the,
Doodle-li, Doodle-li-do.
Come on and Waddlely-atcha, Waddlely-atcha,
Waddlely-O, Waddlely-O
Waddlely-atcha, Waddlely-atcha,
Waddlely-O, Waddlely-O
Its the simplest thing, there isn't much to it
All you gotta do is Doodle-li-do it,
I like it so, whenever I go – its the,
Doodle-li, Doodle-li-do.
Toot, Toot!

The belief that there are
many ways
that individuals can demonstrate
their high ability levels.

Multiple Intelligence theory respects, honors, supports, and nurtures each individual's intellectual strengths.

Eight Ways of Being Smart

- Linguistic
- Logical-Mathematical
- Spatial
- Bodily-Kinesthetic
- Musical
- Inter-personal
- Intra-personal
- Naturalist

Intelligence is the ability to see patterns and
build relationships from those patterns.

Criteria for Inclusion

- Definable Experts (Culturally Valued)
- Evolutionary History
- Psychometric Measures
- Existence of Savants, Prodigies…
- Neuroscience Evidence
- Developmental Trajectory

Brain Basics

Neuroscience Evidence

- Intellectual capabilities are mapped in the brain. They create a topography that can be used to verify psychological measures.

Neurological Systems

Linguistic	Left temporal and frontal lobes
Logical-Mathematical	Left parietal lobes, right hemisphere
Spatial	Posterior regions of right hemisphere
Bodily-Kinesthetic	Cerebellum, basal ganglia, motor cortex
Musical	Right temporal lobe
Inter-personal	Frontal lobes, temporal lobe, limbic
Intra-personal	Frontal lobes, parietal lobes, limbic
Naturalist	Left parietal lobes, right hemisphere

Brain Basics

- Intellectual capabilities are contingent on a complex interplay between genes and the environment.

Brain Basics

- Some abilities are acquired more easily during certain sensitive periods, or "windows of opportunity."

Developmental Trajectory
Windows of Opportunity

Windows	Wiring Window	Enhancement	Lifespan
Thinking Skills Logical-Mathematical Linguistic Naturalist	O-48 months	4 years to puberty	Decreases over time
Physical Skills Bodily-Kinesthetic Spatial	0-24 months	2 years to puberty	Decreases over time
Social Skills Interpersonal	0-48 months	4 years to puberty	Increases with practice
Emotional Skills Intrapersonal	0-48 months	4 years to puberty	Increases with practice
Music Skills Musical	0- 3 years	3 years to 10 years	Decreases with time
Language Skills Linguistic	0- 5 years	5 years to puberty	Decreases with time

Brain Basics

- Our bodies release chemicals (cortisol) when under stress. Cortisol destroys brain connections in children.

  Negative emotions inhibit cognitive processing.

- Our bodies release chemicals (endorphins) when we feel happy and content.

  Positive emotions boost memory and assist in cognitive processing.

Brain Basics

- The more connections made between new information and existing patterns in the brain, the greater the chances of moving information from working memory to long term memory.
- Intelligence is the ability to recognize patterns and build relationships with these patterns or variations of these patterns.

Brain Basics

- Novelty boost memory.
- Learning something within meaningful context increases the speed in which the information travels to long term memory.

Eight Ways of Being Smart

- Linguistic
- Logical-Mathematical
- Spatial
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- Musical
- Inter-personal
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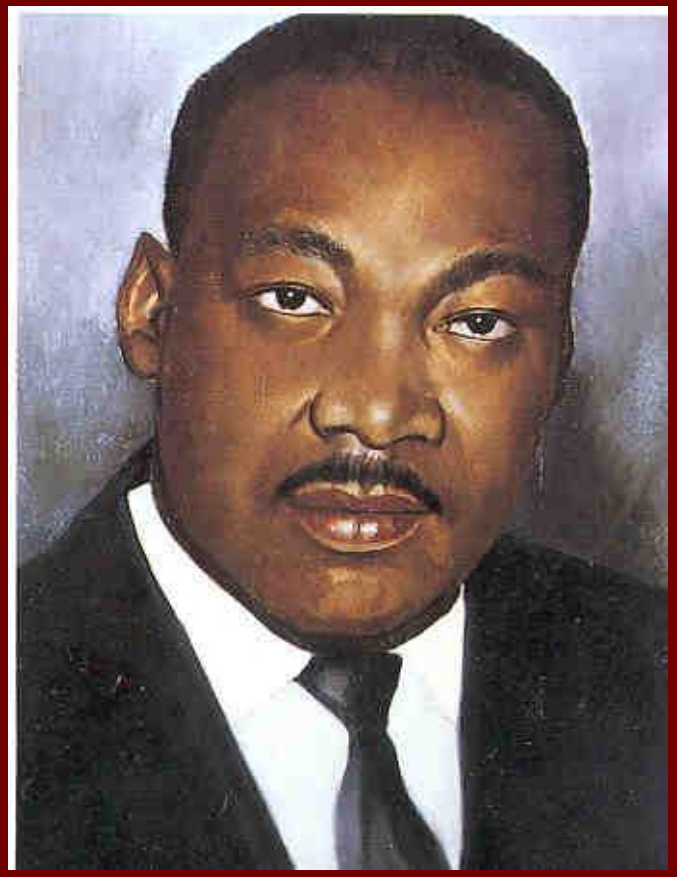
- Naturalist

Linguistic

Martin Luther King, Jr.

- Think in words
- Love reading, writing, telling stories, playing word games
- Need stories, writing tools, books, debate, diaries, discussion

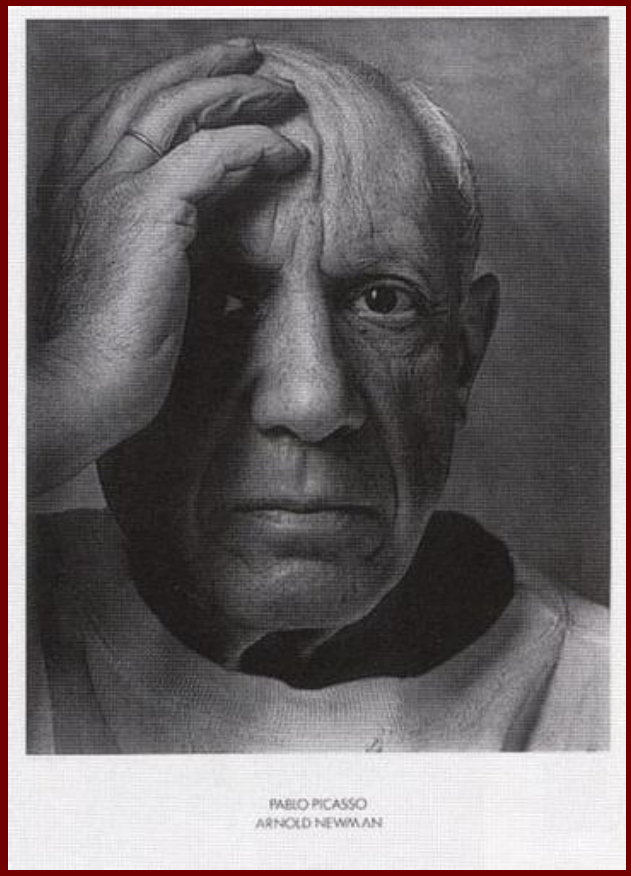


Logical-Mathematical
Madame Curie

- Think by reasoning
- Love experimenting, questioning, figuring out logical puzzles, calculating
- Need exploring and thinking activities, science materials, science museums

Spatial
Pablo Picasso

- Think in images and pictures
- Love designing, drawing, visualizing, doodling
- Need art, legos, videos, movies, slides, mazes, puzzles



Musical
Mozart

- Think via rhythms and melodies
- Love singing, whistling, humming, tapping feet and hands, listening
- Need sing-along time, concerts, music playing, musical instruments

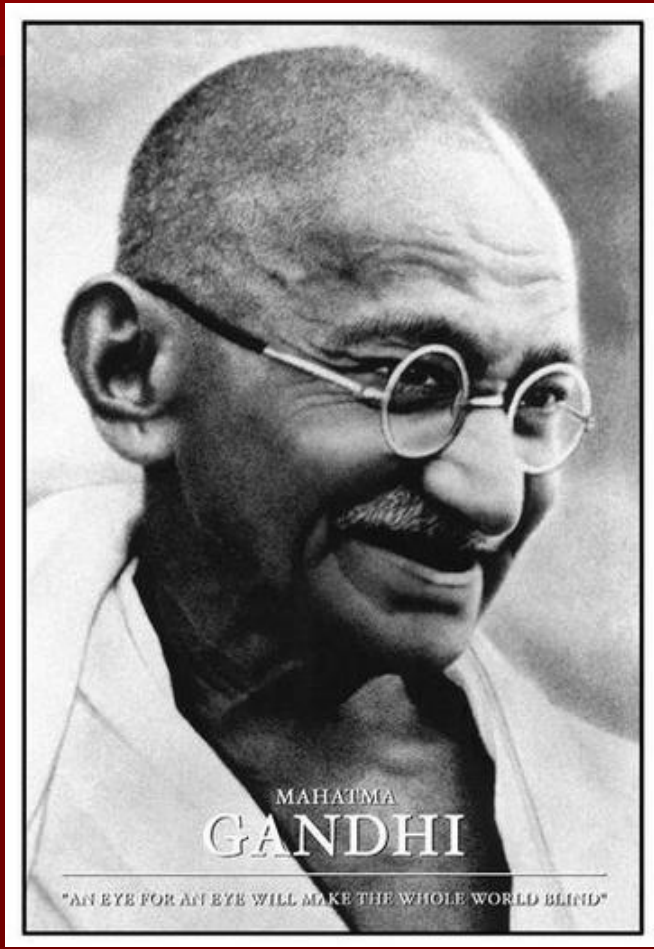
Bodily-Kinesthetic
Babe Ruth

- Think through somatic sensations
- Love dancing, running, jumping, building, touching, gesturing
- Need role play, drama, movement, things to build, hands-on

Interpersonal
Jimmy Carter

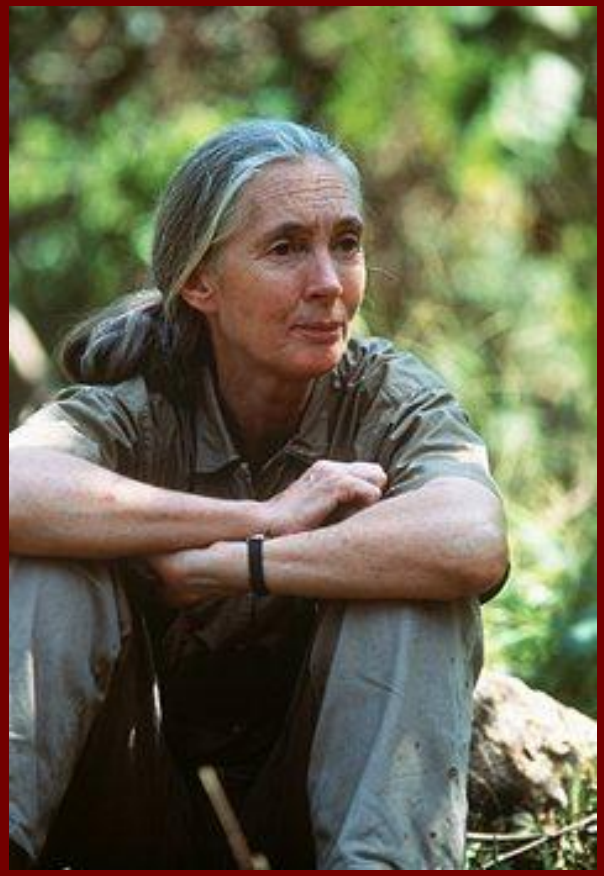
- Think bouncing ideas off other people
- Love leading, organizing, relating, manipulating, mediating, partying
- Need friends, group games, socializing, clubs, community events

Intrapersonal
Gandhi



- Think deeply inside themselves
- Love setting goals, meditating, dreaming, being quiet, planning
- Need secret places, time alone, self-paced projects, choices

Naturalist
Jane Goodall



- Think in organizing patterns
- Love exploring flora and fauna, observing animal life, camping
- Need outdoors, zoos, arboretums, plant life, exploration, rocks, pets

Principles of MI Theory

- Each person possesses all 8 intelligences.
- Most people can develop each intelligence to an adequate level of competency.
- Intelligences usually work together in complex ways.
- There are many ways to be intelligent within each category.

Sample Kindergarten MI Lesson
Concept: Circle

Linguistic	Read "Tillie Triangle"
Logical-mathematical	Arrange concentric circles
Spatial	Shape circles from clay
Bodily-Kinesthetic	Toss Frisbees thru Hula Hoops
Musical	Sing a song in rounds
Interpersonal	Play a circle game, i.e. Hokey Pokey
Intrapersonal	Design a dress for Tillie that she can wear in her circle shape
Naturalist	Search for circles in the classroom

Sample MI Lesson
Concept: Fractions (part of a set)

Linguistic	Read *The Doorbell Rang* or *Hershey's Milk Chocolate Bar Fractions Book* (Pallota)
Logical-mathematical	Have children fold sheets of paper into fractional parts. Color one section of each paper and write the faction that shows the relationship of the colored section to the whole set.
Spatial	Draw a picture of three of four items. Circle 1 item to represent the numerator of 1/3 or ¼.
Bodily-Kinesthetic	Play Finding Fractions
Musical	"Carousel"
Interpersonal	Divide sandwiches in two or four equal parts. Share with a classmate.
Intrapersonal	Discuss families. How children represent their fractional part of the family unit.
Naturalist	Have children vote on which of four fruits they like best. Graph the result and express as fractions of the whole.

Children are like crayons. No matter what color, what size, what shape, what condition or how old they maybe, both are capable of beautiful things when given a loving hand to guide them.

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